

List of Publications

(updated on 4/28/2005)

Ken Ahn

Total number of citations: 406

Publications in Nature / Phys. Rev. Lett. / Phys. Rev. B

1. **Electronic properties of structural twin and antiphase boundaries in materials with strong electron-lattice couplings**
K. H. Ahn, T. Lookman, A. Saxena and A. R. Bishop, accepted for Phys. Rev. B (cond-mat/0309328).
2. **Coherent optical and acoustic phonon generation correlated with the charge-ordering phase transition in $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$**
D. Lim, V. K. Thorsmølle, R. D. Averitt, Q. X. Jia, K. H. Ahn, M. J. Graf, S. A. Trugman and A. J. Taylor, Phys. Rev. B 71, 134403 (2005).
3. **Strain-induced metal-insulator phase coexistence in perovskite manganites**
K. H. Ahn, T. Lookman and A. R. Bishop, **Nature** 428, 401 (2004).
[Featured as “News & Views” in **Nature Materials** 3, 207 (2004) by N. Mathur and P. Littlewood, and in the **Los Alamos News Bulletin** at <http://www.lanl.gov/worldview/news/releases/archive/04-052.shtml>. Invited for **2005 American Physical Society March Meeting**.]
4. **Ultrafast quasiparticle relaxation dynamics in normal metals and heavy fermion materials**
K. H. Ahn, M. J. Graf, S. A. Trugman, J. Demsar, R. D. Averitt, J. L. Sarrao and A. J. Taylor, Phys. Rev. B 69, 045114 (2004).
[Included in **Virtual Journal of Ultrafast Science** 3, Issue 2 (2004)]
5. **Strain selection of charge and orbital ordering patterns in half-doped manganites**
M. J. Calderón, A. J. Millis and K. H. Ahn, **Phys. Rev. B** 68 - **Rapid Comm.**, 100401 (2003).
6. **Atomic scale lattice distortions and domain wall profiles**
K. H. Ahn, T. Lookman, A. Saxena and A. R. Bishop, Phys. Rev. B 68, 092101 (2003).

- 7. Elasticity-driven nanoscale electronic structure in superconductors**
J.-X. Zhu, K. H. Ahn, Z. Nussinov, T. Lookman, A. V. Balatsky and A. R. Bishop, **Phys. Rev. Lett.** 91, 057004 (2003).
- 8. Quasiparticle relaxation dynamics in heavy fermion compounds**
J. Demsar, R. D. Averitt, K. H. Ahn, M. J. Graf, S. A. Trugman, V. V. Kabanov, J. L. Sarrao and A. J. Taylor, **Phys. Rev. Lett.** 91, 027401 (2003).
[Included in **Virtual Journal of Ultrafast Science** 2, Issue 8 (2003)]
- 9. Superconductivity in magnetically ordered CeTe_{1.82}**
M. H. Jung, A. Alsmadi, H. C. Kim, Y. Bang, K. H. Ahn, K. Umeo, A. H. Lacerda, H. Nakotte, H. C. Ri and T. Takabatake, **Phys. Rev. B** 67, 212504 (2003).
- 10. Ground state properties of ferromagnetic metal/conjugated polymer interfaces**
S. J. Xie, K. H. Ahn, D. L. Smith, A. R. Bishop and A. Saxena, **Phys. Rev. B** 67, 125202 (2003).
- 11. Effects of the uniaxial strain in LaMnO₃**
K. H. Ahn and A. J. Millis, **Phys. Rev. B** 64, 115103 (2001).
- 12. Effects of magnetic ordering on the anisotropy and temperature dependence of the optical conductivity in LaMnO₃: a tight binding approach**
K. H. Ahn and A. J. Millis, **Phys. Rev. B** 61, 13545 (2000). (Number of citations > 20)
- 13. Optical conductivity of manganites: Crossover from Jahn-Teller small polaron to coherent transport in the ferromagnetic state**
M. Quijada, J. Černe, J. R. Simpson, H. D. Drew, K. H. Ahn, A. J. Millis, R. Shreekala, R. Ramesh, M. Rajeswari and T. Venkatesan, **Phys. Rev. B** 58, 16093 (1998). (**Number of citations > 80**)
- 14. Interplay of charge and orbital ordering in manganese perovskites**
K. H. Ahn and A. J. Millis, **Phys. Rev. B** 58, 3697 (1998). (Number of citations > 30)
- 15. Magnetic properties and colossal magnetoresistance of La(Ca)MnO₃ materials doped with Fe**
K. H. Ahn, X. W. Wu, K. Liu and C. L. Chien, **Phys. Rev. B** 54, 15299 (1996). (**Number of citations > 120**)
- 16. Charge ordering and magnetoresistance in Nd_{1-x}Ca_xMnO₃ due to reduced double exchange**

K. Liu, X. W. Wu, K. H. Ahn, T. Sulcek, C. L. Chien and J. Q. Xiao, Phys. Rev. B 54, 3007 (1996). (Number of citations > 50)

Papers Submitted

1. **Reverse resistance switching in polycrystalline Nb_2O_5 films**
Y. H. Jo, H. J. Sim, H. S. Hwang, K. H. Ahn, and M. H. Jung, submitted to Appl. Phys. Lett.
2. **Dynamics and spectral weights of shake-up valence excitations in resonant inelastic X-ray scattering**
K. H. Ahn, A. J. Fedro, and M. van Veenendaal, submitted to Phys. Rev. Lett. (cond-mat/0412635).
3. **Comment on ‘Relevance of cooperative lattice effects and stress fields in phase-separation theories for CMR manganites’**
K. H. Ahn and T. Lookman, submitted to Phys. Rev. Lett. (cond-mat/0408077).

Conference Proceedings and Book Chapters

1. **Basic properties of spin injection and transport in ferromagnetic/polymer systems**
S. J. Xie, J. F. Ren, J. Y. Fu, K. H. Ahn, D. L. Smith, A. R. Bishop and A. Saxena, to appear as a book chapter in **Progress in Ferromagnetism Research** (Nova Science Publisher, Inc.).
2. **Atomic scale elastic textures coupled to electrons in superconductors**
K. H. Ahn, J.-X. Zhu, Z. Nussinov, T. Lookman, A. Saxena, A. V. Balatsky and A. R. Bishop, J. Superconductivity 17, 7 (2004).
3. **Effects of in-plane strain on magnetism in LaMnO_3 thin films**
K. H. Ahn and A. J. Millis, Int. J. of Modern Physics 16, 3281 (2002).
4. **Effects of in-plane strain on orbital ordering and magnetism in LaMnO_3 thin film**
K. H. Ahn and A. J. Millis, Physica B 312-313, 766 (2002).
5. **Effects of in-plane strain on magnetism in LaMnO_3 thin films**
K. H. Ahn and A. J. Millis, Proceedings of Physical Phenomena at High Magnetic Fields – IV, 389 (2001).
6. **Optical and magnetic property of LaMnO_3**

K. H. Ahn and A. J. Millis, J. Appl. Phys. 87, 5013 (2000).

7. **Effects of Fe doping in the colossal magnetoresistive $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$**
K. H. Ahn, X. W. Wu, K. Liu and C. L. Chien, J. Appl. Phys. 81, 5505 (1997).
(Number of citations > 20)